ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRL-XXXXX]

RIN 2050-AE84

Revision of Wastewater Treatment Exemptions for Hazardous Waste Mixtures ("Headworks Exemptions")

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed Rule

SUMMARY: The Environmental Protection Agency is proposing in today's notice to add benzene and 2-ethoxyethanol to the list of solvents whose mixtures with wastewater are exempted from the definition of hazardous waste under the Resource Conservation and Recovery Act (RCRA). The Agency studied two other solvents, 1,1,2-trichloroethane and 2-nitropropane, and is not proposing at this time to add them to the current exemption.

Besides adding the two solvents to the exemption, the Agency is proposing to provide flexibility in the way compliance with the rule is determined by adding the option of directly measuring solvent chemical levels at the headworks of the wastewater treatment system to the current requirements. Finally, the Agency also is proposing to make additional listed hazardous wastes (beyond discarded commercial chemical products) eligible for the *de minimis* exemption, as well as adding non-manufacturing facilities to those that qualify for this exemption if certain conditions are met.

The Agency is requesting comments on these and other potential exemptions involving wastes managed in a wastewater system regulated under the Clean Water Act (CWA).

The Agency is not proposing any changes or seeking comment on any other provisions of the so-called "headworks rule", codified in 40 CFR §261.3(a)(2)(iv)(A)-(G), not specifically identified in this notice as subject to possible amendment. Nor will the Agency respond to any comments addressing any provisions of the headworks rule not specifically identified in this notice as subject to possible amendment.

DATES: To make sure we consider your comments on revisions to the wastewater treatment exemptions to hazardous waste mixtures, they must be postmarked by [INSERT 60 DAYS FROM DATE OF FEDERAL REGISTER PUBLICATION]

ADDRESSES: Comments may be submitted electronically, by mail, or through hand delivery/courier. Follow the detailed instructions as provided in the **SUPPLEMENTARY INFORMATION** section.

SUPPLEMENTARY INFORMATION:

General Information

Entities potentially affected by this action are generators of industrial hazardous waste, and entities that treat, store, transport and/or dispose of these wastes. This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action.

List of potentially affected U.S. Industrial Entities

Item	Economic Subsector or Industry Identity		Description
	SIC code	NAICS code	
1	02	112	Agricultural production - livestock
2	20	311	Food & kindred products
3	22	313	Textile mill products
4	24	321	Lumber & wood products
5	25	337	Furniture & fixtures
6	26	322	Paper & allied products
7	28	325	Chemicals & allied products
8	29	324	Petroleum & coal products
9	30	326	Rubber & miscellaneous plastics products
10	31	316	Leather & leather products
11	32	327	Stove, clay, glass & concrete products
12	33	331	Primary metal industries
13	34	332	Fabricated metal products
14	35	333	Industrial machinery & equipment
15	36	334, 335	Electrical & electronic equipment
16	37	336	Transportation equipment
17	38	3333, 3345	Instruments & related products
18	42	493	Motor freight transportation & warehousing
19	4581	48819, 56172	Airports, flying fields, & airport terminal services
20	4789	488999	Transportation services nec
21	49	221	Electric, gas, & sanitary services
22	50	421	Wholesale trade - durable goods
23	51	422	Wholesale trade - nondurable goods
24	5999	453998	Miscellaneous retail
25	721	8123	Dry-cleaning & industrial laundry services
26	73	514, 532, 541, 561	Business services
27	80	621, 622, 623	Health services
28	87	712	Engineering & management services
29	8999	54162	Miscellaneous services
30	91	921	Executive, legislative & general government
31	95	924, 925	Environmental quality & housing
32	97	928	National security & international affairs

Notes:

(a) This list is based upon industry codes reported to the USEPA RCRA hazardous waste 1997 “Biennial Reporting System” database by F002/F005 aqueous spent solvent generators which manage such wastes in wastewater treatment systems, supplemented by industry codes which have USEPA Clean Water Act “Categorical Pretreatment Standards” for indirect discharge of industrial wastewaters to POTWs (as of July 2002).

(b) The USEPA Office of Solid Waste matched 1987 2-digit level SIC codes to 1997 NAICS codes using the US Census Bureau website: http://www.census.gov/epcd/naics/nsic2ndx.htm#S0

(c) SIC= 1987 Standard Industrial Classification system (U.S. Department of Commerce's traditional code system last updated in 1987).

(d) NAICS= 1997 North American Industrial Classification System (U.S. Department of Commerce's new code system as of 1997).

(e) Refer to the Internet website http://www.census.gov/epcd/www/naicstab.htm for additional information and a cross-walk table for the SIC and NAICS codes systems.

This table lists the types of entities that EPA believes could be affected by this action, based on industrial sectors identified in the economic analysis in support of this proposal. A total of about 3,300 to ~~8,100~~ 10,400 entities are expected to benefit from the proposed revisions to 40 CFR 261.3 in the 32 industrial sectors listed above, but primarily in the chemicals and allied products sector (i.e., SIC code 28, or NAICS code 325). Other entities not listed in the table also could be affected. To determine whether your facility is covered by this action, you should examine 40 CFR part 261 carefully in concert with the amended rules found at the end of this Federal Register document. If you have questions regarding the applicability of this action to a particular entity, consult the persons listed in the FOR FURTHER INFORMATION CONTACT section.

How Can I Get Copies Of This Document and Other Related Information?

Docket. EPA has established an official docket for this action under Docket ID No. RCRA-2002-0028. The official docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The public docket is the collection of materials that is available for public viewing at 1301 Constitution Avenue, NW, Washington, DC. This Docket Facility is open from 9 AM to 4 PM, Monday through Friday, excluding legal holidays. The Docket telephone number is (202)566-0270. You may copy up to 100 pages from any regulatory document at no cost. Additional copies are $0.15 per page.

Electronic Access. You may access this Federal Register document electronically through the EPA Internet under the "Federal Register" listings at *http://www.epa.gov/fedrgstr*.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at http://www.epa.gov/edocket/ to submit or view public comments, access the index listing of the contents of the public docket, and access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA Dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information

whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

For additional information about EPA's electronic public docket visit EPA Dockets online or see 67 FR 38102, May 31, 2002.

How and To Whom Do I Submit Comments?

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments.

Electronically. If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact

information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at http://www.epa.gov/edocket, and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select "Information Sources," "Dockets," and "EPA Dockets." Once in the system, select "search," and then key in Docket ID No. RCRA-2002-0028. The system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

Comments may be sent by electronic mail (e-mail) to rcra-docket@epamail.epa.gov, Attention Docket ID No. RCRA-2002-0028. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access"

system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

You may submit comments on a disk or CD ROM that you mail to the mailing address identified in the following paragraph. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

By Mail. Send an original and two copies of your comments to: RCRA Docket Information Center, Office of Solid Waste, Environmental Protection Agency, Mailcode: 5305W, 1301 Constitution Ave., NW, Washington, DC, 20460, Attention Docket ID No. RCRA-2002-0028.

By Hand Delivery or Courier. Deliver your comments to: RCRA Docket Information Center, 1301 Constitution Avenue, NW, Washington, D.C. 20460, Attention Docket ID No. RCRA-2002-0028. Such deliveries are only accepted during the Docket's normal hours of operation as identified in the "How Can I Get Copies of This Document and Other Related Information?" section.

How Should I Submit CBI To the Agency?

Do not submit information that you consider to be confidential business information (CBI) electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: RCRA CBI Document

Control Officer, Office of Solid Waste (5305W), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, D.C. 20460, Attention Docket ID No. RCRA-2002-0028**.** You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR Part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the FOR FURTHER INFORMATION CONTACT section.

What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.

2. Describe any assumptions that you used.

3. Provide any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at your estimate.

5. Provide specific examples to illustrate your concerns.

6. Offer alternatives.

7. Make sure to submit your comments by the comment period deadline identified.

8. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and Federal Register citation related to your comments.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Call Center at 800-424-9346 or TDD 800-553-7672 (hearing impaired). In the Washington, DC, metropolitan area, call 703-412-9810 or TDD 703-412-3323. For more detailed information on specific aspects of this rulemaking, contact Ron Josephson, phone 703-308-0442; email: josephson.ron@epa.gov , or Laura Burrell, phone 703-308-0005, email: burrell.laura@epa.gov.

SUPPLEMENTARY INFORMATION: The index and many of the supporting materials are available on the Internet. You can find these materials at http://www.epa.gov/epaoswer/hazwaste/id/headworks/index.htm.

List of Acronyms

Acronym	Meaning
1,1-DCE	1,1-dichloroethylene
1,1,2-TCA	1,1,2-trichloroethane

Acronym	Meaning
2-EE	2-ethoxyethanol
2-NP	2-nitropropane
ACC	American Chemistry Council
ANPRM	Advanced Notice for Proposed Rule Making
BRS	Biennial Reporting System
CBI	Confidential Business Information
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DAF	Dilution and Attenuation Factor
EPA	Environmental Protection Agency
EPACMTP	EPA Composite Model for Leachate Migration with Transformation Products
FR	Federal Register
HSWA	Hazardous and Solid Waste Amendments
HWIR	Hazardous Waste Identification Rule
IWEM	Industrial Waste Management Evaluation Model
LDR	Land Disposal Restrictions
MACT	Maximum Achievable Control Technology
MCL	Maximum Contamination Limit
NAICS	North American Industrial Classification System
NPDES	National Pollutant Discharge Elimination System
NRMRL	National Risk Management Research Laboratory
NSPS	New Source Performance Standard
NTTAA	National Technology Transfer and Advancement Act

Acronym	Meaning
OMB	Office of Management and Budget
OSWER	Office of Solid Waste and Emergency Response
POTW	Publicly Owned Treatment Works
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RFA	Regulatory Flexibility Act
RQ	Reportable Quantity
SIC	Standard Industrial Classification
TC	Toxicity Characteristic
TRI	Toxics Release Inventory
UMRA	Unfunded Mandates Reform Act
WWT	Wastewater treatment

Outline

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b. 2-ethoxyethanol

c. 2-nitropropane

A. History of Headworks Rule

On May 19, 1980, the Agency listed several wastes as hazardous under RCRA. The current list as amended is found in 40 CFR 261 Subpart D. Among the listings are the F001 - F005 listings under 40 CFR 261.31, which cover spent solvents as well as residuals from the recovery of spent solvents and spent solvent mixtures. In the same notice, EPA promulgated the "mixture rule" whereby a solid waste becomes regulated as a hazardous waste if it is mixed with one or more listed hazardous wastes.

After these provisions were promulgated, several industry groups became concerned that large volumes of wastewaters (and their resulting treatment sludges) would become listed hazardous wastes. After investigating the submitted data, the Agency, on November 17, 1981, (46 FR 56582 - 56589) promulgated a rule giving several exemptions to the mixture rule under 40 CFR 261.3(a)(2)(iv)(A) - (E). These exemptions are commonly called the “headworks rule.”

The original headworks rule exemptions are divided into four categories: paragraphs (A) and (B) are concerned with solvents that may be contained in wastewaters when going to treatment, paragraph (C) is concerned with certain petroleum wastes, paragraph (D) with *de minimis* quantities of commercial chemical products that are lost to the wastewater treatment system during normal handling operations, and paragraph (E) with laboratory wastes and/or wastewaters discharged to wastewater treatment. The reasoning behind each of these exemptions is that the wastewater treatment system receives many different kinds of wastes and the solvents, commercial chemical products, lab wastes, etc. are a minuscule and treatable part of

the mix of wastewaters. The relatively small volumes of these organic constituents should be easily and effectively handled by the wastewater treatment system, so the risk to the environment would be negligible.

Under the solvents portion of the headworks rule, if the maximum total weekly usage of listed solvents divided by the average weekly flow of wastewater through the headworks of the facility's wastewater treatment system does not exceed the levels specified in paragraphs (A) and/or (B) of 40 CFR 261.3(a)(2)(iv), and the discharge of the wastewaters is subject to regulation under sections 402 or 307(b) of the Clean Water Act, the wastewater is exempt from the mixture rule, (and therefore any subsequent treatment sludge generation also would be exempt). Facilities which have eliminated the discharge of wastewaters also are eligible for this exemption. Those facilities that discharge or transport their wastewaters to privately-owned treatment works are not eligible for this exemption; however, the receiving facilities are eligible to receive the exemption if they comply with the provisions of the headworks rule.

The specified level in paragraph (A) is 1 ppm; the level in paragraph (B) is 25 ppm. See 46 FR 56582 (November 17, 1981) for more details. Carbon tetrachloride, tetrachloroethylene, and trichloroethylene were specified in paragraph (A). The remaining solvents listed under EPA Hazardous Waste Numbers F001, F002, F004, and F005 were put into paragraph (B). Since the solvents listed under EPA Hazardous Waste Number F003 are listed only for ignitability, and wastewater mixtures containing F003 solvents are not likely to be ignitable hazardous wastes, the headworks rule is not relevant for these wastes.

On February 9, 1995, the Agency listed wastes from the production of carbamate pesticides (60 FR 7824 - 7859). Included in the listing are further amendments to the headworks rule for wastes from this industry, 40 CFR 261.3(a)(2)(iv)(F) and (G). In addition, on August 6, 1998, the Agency revised §261.3(a)(2)(iv)(C) as a part of the petroleum listing determination to include headworks provisions for these newly listed wastes (63 FR 42184).

In August 1999, EPA received a request from the American Chemistry Council (ACC, formerly the Chemical Manufacturers Association) to add the four solvents (1,1,2-trichloroethane, benzene, 2-nitropropane, and 2-ethoxyethanol) listed as hazardous wastes in 1986 to the headworks exemption. ACC also asked the Agency to allow direct monitoring as an alternative method by which compliance with the headworks rule may be determined. Other ACC-requested headworks rule changes include allowing those wastes listed in 40 CFR 261.31 and 261.32 to be added to the *de minimis* exemption, and expanding the headworks rule to include certain landfill leachates. EPA included a request for comment on these and other ACC-suggested exemptions to the mixture and derived-from rules in the November 19, 1999 proposed Hazardous Waste Identification Rule (HWIR) (64 FR 63382). Many of today's proposed changes are an outgrowth of ACC's suggested revisions and the public comments that EPA received in response to the discussion of these suggested revisions in the 1999 HWIR proposal.

B. History of Solvent Listings

On May 19, 1980, the Agency listed 23 chemicals or classes of chemicals as hazardous wastes when used as solvents and subsequently spent. The listings can be found at 40 CFR 261.31, EPA Hazardous Waste Numbers F001 - F005. As previously stated, in 1981 the Agency determined that small volumes of these spent solvents could be lost to wastewater treatment systems with negligible risk and therefore these spent solvents were exempted under the headworks rule (46 FR 56582 - 56589, November 17, 1981).

The Agency's spent solvent listings cover only those solvents that are used for their "solvent" properties – that is, to solubilize (dissolve) or mobilize other constituents. For example, solvents used in degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media, and similar uses are covered under the listing (when spent). A solvent is considered "spent" when it has been used and is no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed.

On the other hand, process wastes in which solvents were used as reactants or ingredients in the formulation of commercial chemical products are not covered by the listing. The products themselves also are not covered. (See 50 FR 53316, December 31, 1985.)

On February 25, 1986 (51 FR 6537 - 6542), the Agency listed four other solvents in the F002 and F005 categories. These solvents are 1,1,2-trichloroethane, benzene, 2-nitropropane, and 2-ethoxyethanol (or ethylene glycol monoethyl ether). These listings were in response to a Congressional mandate in the Hazardous and

Solid Waste Amendments of 1984 (HSWA). At the time, the Agency did not determine whether or not to add these solvents to the headworks rule exemptions.

The Agency followed up the 1986 solvent listings with another listing determination concerning solvents as part of a court-ordered mandate. On November 19, 1998 (63 FR 64372 - 64402), the Agency finalized a decision not to list any of 14 selected chemicals as spent solvents under the current listings. The Agency concluded that many of these chemicals had little to no solvent use or very specialized solvent uses, and those that were used as solvents were managed in such a way that additional regulation was not warranted. As a part of the same court-ordered mandate, the Agency also published a "Solvents Study" (August 22, 1996) on seven additional chemicals. Most of these chemicals were found to have no solvent use at all.

III. Potential Changes to the Headworks Rule

The Agency intends to make a technical correction to §261.3(a)(2)(iv)(A). The term "spent" was inadvertently omitted from this paragraph when promulgated. The term "spent" should have appeared immediately before the word "solvent" in the first clause of the sub-paragraph as it does in sub-paragraph (B) of §261.3(a)(2)(iv). The Agency proposes to correct this inadvertent oversight by inserting the word "spent" in the appropriate place in sub-paragraph (A).

A. Adding Solvents to the Headworks Exemption

The American Chemistry Council requested that the Agency consider adding the four solvents listed in 1986 to the headworks exemption under 40 CFR 261.3(a)(2)(iv)(A) and (B). After evaluating these chemicals, the Agency is proposing

to add two of the solvents (benzene and 2-ethoxyethanol) to the exemption. That is, the Agency is proposing to add benzene to the solvents with a total 1 ppm headworks limit under §261.3(a)(2)(iv)(A) and is proposing to add 2-ethoxyethanol (2-EE) to the 25 ppm total limit under §261.3(a)(2)(iv)(B). The exemption for benzene is conditioned on the use of aerated biological treatment units and the requirement that any surface impoundments used prior to secondary clarification be lined. The Agency is not proposing any action regarding 1,1,2-trichloroethane (1,1,2-TCA) and 2-nitropropane (2-NP) at this time ~~due to more serious toxicity concerns and (in the case of 2-NP) a lack of information on toxicity via the ingestion route~~. The Agency considered each solvent's risks individually and solicits comments on the appropriateness of the exemptions and the levels set.

Under today's proposed changes, if the total headworks concentration of methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, and 2-ethoxyethanol (added by today's proposal) do not exceed 25 parts per million (ppm), and the other conditions are met relating to Clean Water Act discharge and monitoring or measurement of constituents in the headworks of the wastewater treatment system (see below), the wastewater mixtures would no longer be considered hazardous waste. For mixtures of carbon tetrachloride, tetrachloroethylene, trichloroethylene, and benzene (added by today's proposal under certain conditions), the total headworks concentration cannot exceed 1 ppm, and also must meet the other conditions for it to no longer be considered a

hazardous waste; in addition, mixtures containing benzene must be managed in an aerated biological wastewater treatment system without the use of unlined surface impoundments prior to secondary clarification.

The Agency is taking comment only on the evaluation and decisions made concerning benzene, 2-ethoxyethanol, 1,1,2-trichloroethane, or 2-nitropropane to the mixture rule exemption at 40 CFR 261.3(a)(2)(iv)(A) and (B). The Agency is not soliciting comments on solvents currently exempted. The Agency also is not taking comment on any spent solvent listing or any other hazardous waste listing. Nor will the Agency respond to any comments submitted addressing any currently exempted solvent, any spent solvent listing or any other hazardous waste listing.

1. General Approach to Risk Analysis

The Agency took a phased approach to the risk analysis for the four solvents under consideration. In the first phase, EPA conducted a protective screening analysis by comparing the regulatory levels in the current solvents headworks exemption (i.e., 1 ppm and 25 ppm) with protective waste concentration limits (based on ingestion of ground water contaminated by surface impoundment leachate and inhalation of chemicals volatilized from an aerated tank) that EPA already had generated under previous efforts. These efforts calculated protective levels based on a more stringent 10^{-6} risk threshold. In addition, EPA evaluated data from EPA's National Risk Management Research Laboratory (NRMRL, part of the Agency's Office of Research and Development) treatability database to determine the probable effect of treatment in reducing chemical concentrations using existing treatment technologies. In the second

phase, EPA performed a more detailed analysis for the chemicals (where possible). This more detailed human health risk assessment evaluated both the direct groundwater pathway and indirect exposure pathways for chemicals released from either the wastewater or the resulting treatment sludge. This Phase II analysis used a 10^{-5} risk threshold that the Agency considers sufficiently protective of human health and the environment, and therefore uses for a variety of regulatory determinations.

Comparison to Existing Waste Concentration Limits

The screening analysis compared waste concentration estimates taken from previous modeling efforts for each of the four chemicals with applicable headworks exemption levels.

Table 1: Preliminary Comparative Solvent Risk Data

Chemical name	Groundwater ingestion (mg/L)[1]	Direct Inhalation[2] (mg/L)
benzene (c)	0.0027	3
2-ethoxyethanol (nc)	13	100,000
2-nitropropane (c)	N/A	0.04
1,1,2-trichloroethane (c)	0.0028	2

Footnotes:

(c) is a carcinogen, (nc) is a non-carcinogen

1 Adult risk, surface impoundment, 10^{-6} risk, HQ=1 (ground water modeling screening levels from IWEM)

2 Adult risk, Aerated tanks, 90 % sites, 90% receptors protected, 150 m, 10^{-6} risk, HQ=0.25 (1999 Air Characteristic Study)

The Agency identified waste concentration screening estimates that would be protective of groundwater ingestion for three of the solvents (benzene, 2-ethoxyethanol,

and 1,1,2-trichloroethane) from previous groundwater modeling efforts.[1] This comparison was conservative because it did not take into account any reductions in concentration due to treatment. For all three chemicals, the protective screening levels are lower than the existing standards for wastewaters entering treatment (i.e., 1 ppm for benzene and 1,1,2-trichloroethane; and 25 ppm for 2-ethoxyethanol), indicating a need for further analysis. The Agency currently does not have sufficient information to generate an estimate of the toxicity of 2-nitropropane through ingestion, so no comparison could be made.

The Agency also has identified waste concentration estimates that would be protective of inhalation exposures to each of the four chemicals during volatilization from aerated tanks, also based on previous modeling efforts.[2] The numbers shown in Table 1 represent the maximum constituent concentration meeting the noted adult risk thresholds at specified receptor distances. The table shows that for three of the solvents (benzene, 2-ethoxyethanol, and 1,1,2-trichloroethane), the maximum modeled constituent level is above the exemption level proposed for these chemicals (i.e., the existing standard of 1 ppm or 25 ppm was protective of this risk scenario) and thus, is considered protective. One of the constituents, 2-NP, is still of concern for the

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[1]U.S. EPA. 2002. Industrial Waste Management Evaluation Model (IWEM) Technical Background Document. Office of Solid Waste, Washington, DC. EPA530-R-02-012.

[2]Volume III: Revised Risk Analysis for the Air Characteristic Study: Results, EPA 530-R-99-019c, U.S. EPA, November 1999. (on CD-Rom)

inhalation pathway (i.e., the potential standard of 1 ppm would not meet the Agency inhalation risk thresholds). Additional discussion of 2-nitropropane follows below.

Analysis of Treatability Data

The NRMRL treatability database provides valuable information on effluent concentrations for specific chemicals at set input levels. For the purposes of today's proposal, Agency staff searched the database for aqueous treatment technology data on full-scale industrial facilities in the chemical or petroleum refining industries that have measured levels of any one of the four solvents entering the wastewater treatment system. Data generally are summarized from government references, such as effluent guidelines development documents. Aqueous treatment technology data are available for benzene and 1,1,2-trichloroethane. Only one non-industrial aqueous treatment technology data point exists for 2-ethoxyethanol, and no data are available for 2-nitropropane. The data show that for two of the solvents (benzene and 2-ethoxyethanol), wastewater treatment generally is effective in reducing concentrations below the levels of concern. Information on how to obtain the NRMRL data can be found at http://www.epa.gov/ORD/NRMRL/treat.htm. Further analysis of NRMRL data as applied to industrial users of the chemicals under consideration is available in *Proposed Rule to Expand the RCRA Wastewater Treatment Exemptions for Hazardous Waste Mixtures (Headworks Exemption) in 40 CFR 261.3(a)(2)(iv) Technical Background Document* located in the public docket to today's rule.

Additional Human Health Risk Assessment

In the second phase, the Agency used the Chem 9/Water 9 model as an emissions source model (i.e., to estimate the wastewater and sludge concentrations after each step in the wastewater treatment system) and the Industrial Waste Management Evaluation Model (IWEM) to perform a groundwater pathway risk assessment, using data from the 1997 Biennial Reporting System as input parameters.[3] EPA modeled wastewaters managed in both a non-aerated tank and unlined surface impoundment, and an aerated biological treatment system (which included both primary and secondary clarifier wastewater units). EPA also modeled sludges generated by wastewater treatment as managed in monofills and land farms. EPA modeled direct and indirect pathways, using chemical specific dilution and attenuation factors (DAFs) from EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP), to predict the constituent concentration at the point of human contact. Direct routes included exposure via ingestion of contaminated ground water and inhalation of vapors from showering with contaminated ground water. Indirect routes of exposure included the consumption of contaminated vegetables and meats.

[3]The 1997 BRS data were used because that was the last year to include wastewater data. EPA queried the BRS for data on F002 (for 1,1,2-trichloroethane) and F005 (for benzene, 2-ethoxyethanol, and 2-nitropropane) at facilities which generated wastewaters or managed treatment sludges. The data from the BRS do not state which solvent is linked to a specific waste code. To screen for a “high end” exposure analysis, EPA based the input parameters on the facility that is the 90th percentile in size for the given waste code (i.e., that only ten percent of the facilities are larger).

For each scenario, multiple iterations were conducted to determine both central tendency risk and "high-end" risk. In all cases, however, the influent concentrations for benzene and 1,1,2-TCA at the headworks were assumed to be the maximum exemption level allowable assigned to carcinogens (1 ppm), and for 2-ethoxyethanol the influent concentration was assumed to be the maximum allowable limit for non-carcinogens (25 ppm). The risk level was set at 10^{-5} (one chance in 100,000) for carcinogens and at a hazard quotient of 1 for non-carcinogens. Finally, for the indirect pathways, the medium used to grow plants was assumed to consist of 100% sludge (at the concentration generated by Chem 9/Water 9). Because none of the chemicals assessed were found to be of concern for the indirect pathways, EPA did not further refine this assumption. A full description of the data screening methodology can be found in the modeling background document to today's proposal.

2. Issues presented by each solvent

a. Benzene

Benzene is the most ubiquitous of the four solvents under consideration. It has uses in many industries, particularly in organic synthesis and catalyst formation. Benzene is used as a reactant as well as a medium for reactions to take place. Due to increased restrictions on benzene emissions (such as MACT standards, etc.), chemical industries have been encouraged to find alternatives to benzene. It is also one of the more toxic, being classified by EPA as a Class A carcinogen.

As presented in Table 1 of this notice, existing modeled waste concentration limits show that the 1 ppm standard would be protective for the direct air inhalation

pathway, even with the more stringent 10^{-6} risk threshold. Moreover, data from the NRMRL treatability database demonstrate that, after the specified treatment, effluent concentrations for benzene generally are below the groundwater modeled level of 0.0177 mg/L (17.7µg/L), even when the influent benzene level approaches 1 mg/L (1,000µg/L). Note that treatability numbers are measured at the effluent of a wastewater treatment system, not in the treatment unit itself. However, we believe this comparison is helpful because it illustrates that levels of benzene below concern are achievable in industrial wastewater treatment systems, even when the input level approaches 1 ppm.

Data from the groundwater pathway human health risk analysis also support the addition of benzene to the headworks exemption, with certain conditions. For wastewaters, non-aerated treatment scenarios resulted in exposures above the level of concern for all components, but aerated biological treatment scenarios resulted in unacceptable risk levels only when the primary clarifier wastewaters were managed in an unlined surface impoundment. For sludges, non-aerated treatment sludges and aerated biological treatment primary sludges managed in landfills resulted in risk levels above the level of concern, but aerated biological treatment secondary sludges managed in landfills were below the levels of concern. Indirect exposures to benzene from management of sludges in land farms were not of concern, regardless of treatment type. Benzene exceeded the risk of 10^{-5} for each of the non-aerated scenarios and two components from the aerated biological treatment system (primary clarifier wastewaters

being managed in an unlined surface impoundment and primary clarifier sludge being managed in a monofill).

Based on the above results, the Agency is proposing to add benzene to the headworks exemption at the level of 1 ppm with the condition of certain management practices. Specifically, the proposed conditions are that wastewaters containing benzene be managed in aerated biological waste management units and that any surface impoundments used prior to secondary clarification be lined. Aerated biological treatment facilitates biodegradation, reducing the concentration of benzene in the sludge. [See *Risk Assessment to Support the Wastewater Treatment Exemptions (Headworks Exemptions)Proposed Rule*, U.S. EPA 2002, for further information on assumptions used for biodegradation in aerated biological treatment systems]. Although the modeled risk for managing primary clarifier sludge (that is generated prior to aerated biological treatment) in a monofill exceeded 10^{-5}, EPA does not believe that additional conditions are needed to be protective of this scenario, primarily because these sludges still would be considered hazardous wastes if they exhibit the Toxicity Characteristic for benzene of 0.5 mg/L.

The Agency seeks comment on the proposal to add benzene to the headworks exemption at the level of 1 ppm with the conditional management requirements, on the necessity of the contingent management requirements, the level of biodegradation achieved through aerated biological treatment systems, industrial solvent use levels of benzene, and current industrial treatment systems and management practices.

b. 2-Ethoxyethanol

2-ethoxyethanol is the least toxic of the four chemicals under consideration, and is the only non-carcinogen. Due to concerns about workplace exposure and the availability of substitute chemicals, use of 2-ethoxyethanol has been declining in the United States.

As presented in Table 1 of this notice, existing modeled waste concentration limits show that the 25 ppm standard would be protective for the direct air inhalation pathway, even without additional treatment. In addition, the limited treatment information on 2-ethoxyethanol available in the treatability database show that treatment can be effective in further reducing the concentration of 2-ethoxyethanol in wastewaters. However, groundwater screening pathway data for 2-ethoxyethanol, also in Table 1, show protective screening levels slightly below the 25 ppm standard (i.e., 13 ppm), indicating a need for further analysis.

The more detailed groundwater pathway human health analysis does support, however, the addition of 2-ethoxyethanol at 25 ppm to the headworks exemption. Both direct and indirect analyses showed 2-ethoxyethanol at 25 ppm in the headworks poses no significant human health risk. [See *Risk Assessment to Support the Wastewater Treatment Exemptions (Headworks Exemptions)Proposed Rule*, U.S. EPA 2002]

The Agency seeks comment on the proposal to add 2-ethoxyethanol to the headworks exemption at 25 ppm.

c. 2-Nitropropane

The Agency has very little production, release and toxicity data on 2-nitropropane. The 1999 Toxics Release Inventory (TRI) only listed three facilities

nationwide reporting the chemical present in wastewaters. The treatability database from NRMRL has no aqueous technology data on 2-nitropropane. The Agency has only inhalation toxicity information to use for risk modeling purposes. We believe that the available information risk is not adequate to develop an oral benchmark for 2-nitropropane. 2-Nitropropane failed to pass the Phase I air risk screen by a factor of 25 (in contrast to the other three solvents passing, as indicated in Table 1). Because of the large margin of failure for 2-nitropropane, we considered it unlikely that 2-nitropropane would pass a more robust Phase II type of analysis. ~~Data from previous modeling efforts (Table 1) show risk levels from air inhalation exposure that do not support an exemption for 2-nitropropane at this time. In addition, the Agency has no current ingestion toxicity information to use for risk modeling purposes for 2-nitropropane. The treatability database from NRMRL has no aqueous technology data on 2-nitropropane. No additional groundwater pathway human health risk analysis was performed on 2-nitropropane due to lack of usage and ingestion toxicity information on this compound.~~ Based on the large margin of failure in the Phase I screen and the extremely low reported usage that the Agency found for 2-nitropropane, we determined that continued analysis of 2-nitropropane was not likely to affect the regulatory status of these wastes significantly.

Accordingly, the Agency is not proposing any action at this time on 2-nitropropane under 40 CFR 261.3(a)(2)(iv)(A) or (B). The Agency seeks comment on the availability of toxicity information on 2-nitropropane and the current level of use as a solvent.

d. 1,1,2-Trichloroethane

According to the Agency's listing background document of 1985[4], most 1,1,2-trichloroethane (1,1,2-TCA) was used as a vinylidene chloride feedstock. The rest had some solvent use, such as a solvent for waxes, resins, fats, rubbers, and coating cleaner.

As presented in Table 1 of this notice, existing modeled waste concentration limits show that the 1 ppm standard would be protective for the direct air inhalation pathway. However, the groundwater modeled level of 0.007 mg/L indicates potential risk at the 1 ppm standard from the groundwater pathway, and data from the NRMRL treatability database do not appear to demonstrate a significant reduction in chemical concentration of 1,1,2-TCA during treatment, especially when the input level approaches 1 ppm.

Data from the more detailed groundwater pathway human health analysis also do not support the addition of 1,1,2-TCA at 1 ppm to the headworks exemption. While 1,1,2-TCA was found to be below the level of concern for indirect exposures, wastewater concentrations resulted in risks greater than 10^{-5} for sludges and wastewaters from both aerated biological treatment and non-aerated treatment units (both for groundwater ingestion and inhalation of shower vapors). In addition, 1,1,2-TCA undergoes transformation to 1,1-dichloroethylene (1,1-DCE) due to hydrolysis while being transported in the subsurface environments. The transformation

[4]"Listing Background Document for Four Spent Solvents and Still Bottoms From Recovery of These Solvents", USEPA, January 22, 1985, Docket No. F-85-LSSP-FFFFF, document no. F005.

product (1,1-DCE) is more toxic than the parent compound (1,1,2-TCA) by approximately an order of magnitude. However, the modeling results are based on the parent compound only. Therefore, risk from 1,1,2-TCA will likely be even greater than shown in the headworks exemption risk background document (US EPA, 2002).

Due to the indication that significant risks occurred in the majority of waste management scenarios as modeled, the Agency is not proposing any action on 1,1,2-TCA at this time under §261.3(a)(2)(iv)(A). The Agency seeks comment on the results of this risk analysis and current solvent use.

B. Revising Compliance Monitoring Method

The Agency is proposing to expand the ways in which compliance with the headworks rule may be determined by adding the option of directly measuring solvent chemical levels at the headworks of the wastewater treatment system. This change would affect 40 CFR 261.3(a)(2)(iv)(A), (B), (F), and (G). Under the current solvent exemptions, a facility must use a “mass balance” approach to calculate the theoretical headworks concentration (via solvent usage) to be in compliance with the rule. That is, a facility must look at inventory records of the amount of solvent purchased weekly and divide that amount by the average weekly flow of wastewater through the headworks of the wastewater treatment system. The amount known not to go into the wastewater treatment system (e.g., lost to product, removed as still bottoms) may be subtracted from the calculation. However, the amount volatilized may not be subtracted to ensure that the solvent wastes were properly treated and to minimize losses of these chemicals through volatilization.

The Agency received a request from ACC to allow another compliance methodology. Under this method, facilities would be allowed to perform a direct measurement of the concentration of solvent chemicals in the wastewater treatment system. According to ACC, use of direct measurement is more accurate than calculating a mass balance over the system. In addition, they point out that with the advent of MACT standards and NSPS requirements under the Clean Air Act and its amendments over the 21 years since the headworks rule was first promulgated, these standards should prevent the intentional volatilization about which the Agency was initially concerned.

When the original headworks rule was promulgated, the Agency was concerned that the exemption might encourage facilities to volatilize solvents before a defined measurement point, thus allowing facilities to claim compliance with the exemption, but in reality transferring the waste management problem to another medium. As a result, the Agency structured the exemption to require facilities to use the "mass balance" approach to calculate whether or not they met the concentration thresholds set forth in the rule. As noted earlier, facilities are allowed to subtract the amount of solvents known not to go into the wastewater treatment system (e.g., from losses to product, still bottoms, etc.), but not losses due to volatilization (See 46 FR 56585, footnote 24, November 17, 1981). Use of the mass balance approach did not require facilities to define a specific point to measure levels of solvents entering the wastewater treatment system.

Since the 1981 rule was published, the Agency has promulgated numerous air emissions regulations for new and existing sources under the Clean Air Act (e.g., MACT and NSPS programs). The background document to today's proposal *Proposed Rule to Expand the RCRA Wastewater Treatment Exemptions for Hazardous Waste Mixtures (Headworks Exemption) in 40 CFR 261.3(a)(2)(iv) Technical Background Document*) lists the industries affected by these Clean Air Act programs. Because of the coverage of these regulations, the Agency believes that concerns about volatilization have been addressed, and that allowing facilities a greater choice of compliance methodologies is appropriate.

Use of this method also means that the measured level(s) of the chemical(s) at the headworks may not exceed the total regulatory level, regardless of its (or their) origin in the process, as long as some of it (or them) has been used as a "solvent." Therefore, direct measurement could overstate the amount of solvent(s) if the chemical(s) were used at the facility in other applications (e.g., impurity in other feedstocks, product component, reaction byproduct, etc.) Facilities that wish to take advantage of the direct monitoring approach must report the entire concentration of the chemical in question if any of it was used as a solvent.

The Agency is proposing to give facilities a choice of using direct measurement or mass balance to determine compliance with the headworks rule. Facilities that choose to use direct monitoring must be subject to Clean Air Act regulations that minimize fugitive process or wastewater emissions (e.g., MACT standards under 40 CFR 61 or 63 or NSPS requirements under 40 CFR 60). We are not proposing any

changes to, nor are we seeking comment on the regulatory standard set in the 1981 rule, that a facility may not exceed the total solvent level set forth in §261.3(a)(2)(iv)(A) or (B) in order to comply with the rule. The Agency will not respond to comments addressing this standard.

One of the main implementation issues in utilizing the direct monitoring method of compliance is understanding the point in the process at which a facility determines whether it meets the limits in §261.3(a)(2)(iv)(A) or (B). In response to this issue, the Agency is setting an informal definition of "headworks" so facilities and implementing agencies can understand how the monitoring point is described. The guidance the Agency is providing is intended to mirror the language in the 1981 preamble; namely, that the headworks is the location at which final combination of raw process wastewater streams typically takes place (46 FR 56582, November 17, 1981).

The Agency is not proposing to set a regulatory definition of the term headworks. Instead, the Agency prefers to describe the term for both maximum flexibility and understanding. For the purposes of this rule, headworks can include a central catch basin for industrial wastewaters, a pump station outfall, equalization tank, or some other main wastewater collection area that exists in which transport of process wastewaters stops and chemical or biological treatment begins.

The Agency seeks comment as to whether the description for headworks given above is adequate, or if a more detailed description is needed. Commenters may wish to provide examples to illustrate working definitions of headworks or where confusion about a headworks definition might exist.

The Agency proposes that facilities that want to take advantage of using direct monitoring develop a site-specific sampling and analysis plan that demonstrates compliance with the weekly average standards set for the appropriate solvent(s). The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of appropriate constituents to be monitored. In addition, facilities would be required to file a copy of the sampling and analysis plan with the Regional Administrator or State Director, as the context requires, or an authorized representative (i.e. the "Director," as defined in 40 CFR 270.2), and would need to confirm that such sampling and analysis plan had been received prior to the commencement of direct monitoring at the facility. Examples of confirmation include certified mail return receipt, or written confirmation of delivery from a commercial delivery service. Upon confirmation that the sampling and analysis plan has been delivered successfully to the overseeing agency, the facility would be allowed to commence direct monitoring to demonstrate compliance. The filing of the sampling plan would suffice for initial notification. EPA does not propose to require any other formal notification to the regulator, unless a change in the facility's operations mandates a change in monitoring. Confirmation that the overseeing agency has received the sampling and analysis plan would not imply, however, that the package has been reviewed or approved. EPA does not propose to require that the overseeing agency issue a formal approval of the sampling and analysis plan. However, the Director may reject the sampling and analysis plan if he/she finds that (1) the sampling and analysis plan fails to include the above information, or (2) the plan parameters

would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the sampling and analysis plan is rejected or if the Director finds that the facility is not following the sampling and analysis plan, the facility must no longer use the direct monitoring option until such time as the bases for rejection are corrected.

The Agency seeks comments from the public as to the benefits of the changes and if they are sufficiently protective of the environment. The Agency would like comments as to whether the best approach is (1) to leave the current system "as is," or (2) to give facilities a choice of mass balance or direct monitoring techniques. The Agency also seeks comment as to whether the overseeing agency should either approve a sampling and analysis plan, or require facilities to wait a certain period of time (if the state or EPA has not responded) before embarking on a direct monitoring program, and how a facility suspected of violating the exemption limits may be made to demonstrate compliance with the weekly standard.

Under the existing headworks exemption rule (46 FR 56585, November 17, 1981), facilities must be prepared to demonstrate (for the purposes of an inspection or audit) that they meet the mass balance criteria of the rule. Facilities opting to use direct monitoring could comply with this requirement by keeping monitoring records on site to show an inspector that the new criteria are being met. Under 40 CFR 268.7(a)(7), a facility is required to place a one-time notice concerning waste generation, subsequent exclusion from the definition of hazardous waste or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste, in the

facility's on-site files. Generally, such notification, as well as certifications, waste analysis data, and other documentation must be kept for a period of three years unless an enforcement action by the Agency extends the record retention period (§268.7(a)(8)). EPA has estimated the burden associated with the proposed reporting requirements when a facility chooses the direct monitoring option. Those estimates are presented in Section IV.D of today's proposal.

The Agency is soliciting comment on how to minimize overlapping reporting requirements. Under EPA's Water program, (e.g, 40 CFR 122.48 and 403.12), facilities may be required under their permits to monitor these same constituents at the point of discharge (i.e., effluent monitoring). The Agency recognizes that current requirements under the Clean Water Act do not require monitoring of the wastewater treatment system influent (or headworks). However, EPA notes some facilities may collect and may report such information. EPA seeks comment on whether or not facilities are currently performing influent monitoring for other media programs. If so, the Agency solicits comments on the frequency of the influent monitoring and reporting and if this information can be used to determine compliance with the headworks rule. .

The Agency *also* seeks comment on the proposed use of other environmental regulatory program requirements to integrate the information needed for this exemption. Specifically, the Agency is interested in how much of the information is contained in air or water permit monitoring/reporting requirements, how easy modifying another regulatory program's requirements to contain these data would be, and what steps facilities are taking to conduct this kind of monitoring already.

C. Exempting Scrubber Water Derived from Solvent Combustion

The issue of whether to exempt incinerator scrubber water first was raised by commenters to the 1999 HWIR proposal. Under the current headworks rule, the exemptions under 40 CFR 261.3(a)(2)(iv)(A) and (B) are from "normal losses" from manufacturing operations and not from wastes that are already separated from the wastewaters or that had been removed from the process previously. Many spent solvents are sent to hazardous waste combustors. The combustors have scrubbers, used for air pollution control, and these scrubbers usually generate an aqueous stream that is easily treatable in the wastewater treatment system. The scrubber waters, however, are considered "derived from" residuals of the spent solvents, and since they are not incidental losses to the wastewater treatment system, they are not currently eligible for the headworks exemptions.

In the carbamates final rule (60 FR 7824 - 7859, February 9, 1995), the Agency decided that scrubber waters from the incineration of carbamate production wastes are eligible for the headworks exemptions that were promulgated under that listing determination. The justification for this decision was that these scrubber waters would be comparable in expected constituents and concentration levels with the already-exempted carbamate wastewaters.

Based on the rationale in the carbamates rule, the Agency is proposing that scrubber waters derived from the combustion of spent solvents and sent to a facility's wastewater treatment system qualify for the exemption under 40 CFR 261.3(a)(2)(iv)(A) and (B). Similar to the carbamates decision, we believe that the scrubber waters

derived from combustion of spent solvent wastes will be comparable in expected constituents with spent solvent wastewaters. In addition, the solvent constituents receive at least 99.99% destruction and removal during incineration, the incinerator scrubber water is typically a small percentage of the flow into a wastewater treatment system, and the wastewater treatment system further reduces remaining constituent concentrations. The Agency requests comment on this proposed revision.

D. Exempting Leachate Derived From Solvent Wastes

Another suggested revision to the headworks rule is to exempt leachate from landfills that accepted only F001 - F005 spent solvent wastes. Under current rules, leachate resulting from the disposal of more than one listed waste under 40 CFR 261 Subpart D is classified as EPA Hazardous Waste Number F039. Since no exemption currently exists under the headworks rule for F039 liquids, these leachates (even if derived solely from spent solvents) cannot be inserted into a facility's wastewater treatment system and receive an exemption from the mixture rule.

BRS data from 1997 show the presence of 12 hazardous waste landfills that accept only F001 - F005 spent solvent hazardous wastes and no other listed wastes. These landfills are both on-site at manufacturing facilities and commercial hazardous waste landfills. In addition, three other landfills list characteristic waste codes, commercial chemical products, and lab packs with the spent solvent wastes. The waste codes in question may be associated with the solvents themselves. For example, D001 wastes are ignitable, and may be from the same solvents. The U226 waste code corresponds to 1,1,1-trichloroethane as a commercial chemical product.

The chemical, when used as a solvent and subsequently spent, would carry an F001 or F002 waste code.

The Agency does not have sufficient data concerning the variability of these leachates to propose adding them to the exemption at this time. The Agency seeks comment as to whether such an exemption would be advisable, the relative volumes of leachate to other wastewaters going for treatment, and the relative concentrations of other contaminants in leachate versus those present in the other wastewaters at these facilities. The Agency also seeks comment as to whether landfills that accept characteristic wastes, lab packs, or commercial chemical products that correspond to the chemicals that are also listed spent solvents should be eligible to have leachate sent to a facility wastewater treatment system and be exempted.

At this point, the Agency is not proposing an exemption for solvent-only leachate. Therefore, in the final rule to today's proposal, the Agency does not expect to include any regulatory language exempting any of these leachates. Rather, the Agency is considering the leachate exemption discussion being advanced in today's proposal as an Advanced Notice of Proposed Rulemaking (ANPRM).

E. Exempting Other Types of Leachate

The ACC also has requested that the Agency consider establishing an exemption to allow facilities with unlined surface impoundments attached to wastewater treatment systems to accept hazardous waste landfill leachate into the wastewater treatment system without the need for the unlined surface impoundment to obtain a hazardous waste treatment, storage, and disposal permit.

At this time, EPA still is considering the suggested regulatory exemption for leachate derived-from landfilled hazardous waste as well as other specific exemption options, but we first need to evaluate several important issues. Most hazardous waste leachate is regulated under a separate waste code, F039. To date, we have received no information that would cause us to reconsider that listing, although we would welcome any data that might be helpful in such a re-evaluation. However, in the most recent EPA study of landfill leachate characteristics (65 FR 3007, January 19, 2000), we found considerable differences between the leachate samples from hazardous and non-hazardous landfills in both numbers of constituents of concern and their concentrations. Specifically, hazardous waste landfill leachate contained a greater number of constituents than non-hazardous waste landfill leachate, and the constituents found in both hazardous and non-hazardous waste landfill leachate generally were present in hazardous waste landfill leachate at concentrations an order of magnitude higher than those found in non-hazardous waste landfill leachate[5]. These pollutants can include many organic hazardous constituents not covered by the Toxicity Characteristic. Absent a risk assessment, it is not possible to determine whether the levels of these constituents pose unacceptable risk. However, the presence of these constituents is a strong indication that more study would be needed before developing an exemption for hazardous waste leachate.

[5]Development Document for Final Effluent Limitations Guidelines and Standards for the Landfills Point Source Category, EPA-821-R-99-019, U.S. EPA, January 2000.

One option would be to limit a possible future exemption to leachates from captive, on-site hazardous waste landfills. The Agency would be inclined to propose this limitation because landfills that accept off-site wastes will likely have a different constituent mix from those constituents in the facility wastewater treatment system. The Agency again seeks comment as to whether such an exemption would be advisable, the relative volumes of leachate to other wastewaters going for treatment, and the relative concentrations of other contaminants in leachate versus those present in the other wastewaters at these facilities.

At this point, the Agency is not proposing an exemption for non-solvent leachate. Therefore, the Agency does not expect to include any regulatory language in the final rule to this proposal without first seeking comment on a more fully-developed proposal.

F. Expanding the *De Minimis* Exemption

The current mixture rule exemption under 40 CFR 261.3(a)(2)(iv)(D) is a provision to remove from regulation small amounts of commercial chemical products (P- and U-listed wastes under 40 CFR 261.33) lost to a wastewater treatment system from manufacturing operations. Small amounts of §261.33 materials which are being produced by, or used as raw product in, a manufacturing process are often unavoidably lost in normal material handling operations. For example, small amounts of raw material are lost in various unloading or material transfer operations (e.g., small drippage when transfer hose lines are disconnected, and fugitive dust when certain materials are emptied from bags or transferred from bins). Additionally, small amounts of manufactured products or intermediates are lost in material handling, or storage

activities (e.g., losses from packing of pumps used to transfer product, unanticipated spills, relief valve discharges, rinsates from drained or otherwise emptied containers, and purgings associated with pressure relief or sample collection). 46 FR 56582 at 56586 (November 17, 1981).

Thus, the *de minimis* exemption is intended to apply to minor, inadvertent releases of waste to a wastewater treatment system as a result of normal operations at a well-maintained facility. The *de minimis* exemption currently does not apply to the discarding of these materials during abnormal manufacturing operations (e.g., operation malfunctions resulting in substantial spills), or the discarding of these materials where they are not being used as raw materials or are not being manufactured as intermediates or final products. Id.

The Agency is proposing to broaden the scope of the *de minimis* exemption in two ways. First, we propose to expand the eligibility for the exemption beyond manufacturing operations. Second, we propose to expand the types of waste that are eligible for the exemption. This revised *de minimis* exemption only applies to those wastes not specifically addressed under some other provision of the headworks rule.

The original headworks exemption applies only to manufacturing operations; such facilities are likely to have wastewater treatment systems with Clean Water Act (CWA) permits that provide a means to assess and limit discharges of the specific chemicals manufactured there. However, the Agency realizes that many raw material storage terminals, hazardous waste facilities, etc. also may have effective wastewater treatment systems that prevent the release of small amounts of spilled wastes from

posing a threat to human health or the environment. The Agency also realizes that under the CWA, many of these facilities have NPDES permits or permits under local CWA pretreatment programs that limit discharges and require monitoring for specific constituents (40 CFR 122, 40 CFR 403). Limitations on discharges of specific constituents implement CWA requirements to ensure that direct dischargers achieve effluent limitations based on best available technology and that indirect dischargers to POTWs comply with pretreatment standards. These limitations and standards act as another protective mechanism to prevent releases of toxic constituents from a facility's wastewater discharges and are an important consideration in the decision to propose this expansion of the *de minimis* exemption.

The Agency is therefore proposing that the *de minimis* eligibility be expanded to non-manufacturing sites that either 1) have a permit subject to the CWA that contains limits for a) the constituents for which each waste was listed (in 40 CFR 261 Appendix VII) and b) the constituents in the table "Treatment Standards for Hazardous Wastes" in 40 CFR 268.40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents), or 2) have eliminated the discharge of wastewaters altogether. By conditioning the expanded exemption on having a CWA permit that addresses the specific chemicals associated with the listed waste, EPA will help ensure that the wastewater treatment systems at non-manufacturing facilities will effectively treat such chemicals. However, this proposed condition would also mean that some raw material storage terminals or other non-manufacturing facilities that do not meet this condition would not be eligible to claim the *de minimis* exemption. This is because,

while some non-manufacturing facilities' discharges are covered by general permits (e.g., storm water discharge permits), they do not specifically address hazardous constituents likely to be present in the listed waste. (In contrast, the manufacturing facilities that are eligible for the current exemption are likely to have wastewater treatment systems with CWA permits that provide a means to assess and limit discharges of the specific chemicals).

The Agency also is proposing to expand the *de minimis* exemption to wastes other than listed commercial chemical products for sites that either 1) have a permit subject to the CWA that contains limits for a) the constituents for which each waste was listed (in 40 CFR 261 Appendix VII) and b) the constituents in the table "Treatment Standards for Hazardous Wastes" in 40 CFR 268.40 for which each waste has a treatment standard (i.e, Land Disposal Restriction constituents), or 2) have eliminated the discharge of wastewaters altogether.

The original headworks exemption only applies to commercial chemical products; CWA permitting requirements at manufacturing facilities generally provide a means to assess and limit discharges of these products, which because of their intrinsic value are not likely to be discharged in large volumes. In its correspondence with the Agency, ACC requested that this portion of the headworks rule be expanded to include *de minimis* amounts of industrial wastes listed in 40 CFR 261.31 and 261.32 (F- and K-listed wastes). *De minimis* releases of these F- and K-listed wastes, similar to those from P- and U-listed wastes, arise from losses during materials handling operations in which these wastes are being generated or being segregated for

treatment and disposal. ACC's position is that facility wastewater treatment systems are capable of handling small amounts of F- or K-wastes spilled to the system.

The Agency agrees that very small releases of industrial waste to a facility's wastewater treatment system are not likely to have a significant effect upon that system, the quality of facility effluent discharges, solid wastes generated, occupational safety and health, and human health and the environment. Moreover, the Agency believes that the constituent-specific CWA permitting requirements under section 402 or under section 307(b) local pretreatment program for eligible facilities provides assurance that releases of these wastes to a facility's wastewater treatment system will be kept to a minimum. CWA permitting requirements at manufacturing facilities generally provide a means to assess and limit discharges of commercial chemical products, but may not specifically address constituents in F- and K-listed wastes. Therefore, to ensure that release of *de minimis* levels of these constituents will not put human health and the environment at risk, and to provide facilities an incentive to minimize the loss of F-and K-listed wastes, the Agency is proposing that facilities which discharge wastewaters have CWA permits that limit Appendix VII and Land Disposal Restriction constituents associated with the specific wastes.

The Agency further notes that the headworks exemption does not negate the applicability of the Toxicity Characteristic (TC) (40 CFR 261.24) to the wastewater treatment sludge. Therefore, facilities have an additional incentive to reduce loadings of certain toxic constituents into the wastewater treatment system to prevent the sludge from exhibiting the TC.

The Agency considers hazardous substance release reporting under §103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §9603 as an additional regulatory backstop to both of the proposed expansions to the headworks exemption. A release of a hazardous substance in a quantity equal to or greater than the Reportable Quantity (RQs) established for that hazardous substance triggers a requirement to notify the National Response Center of that release. See CERCLA §103 (42 U.S.C. §9603(a)). Congress established an initial RQ for all hazardous substances of one pound (unless a higher RQ already had been established under CWA Section 311(b)(4)) until EPA establishes an RQ for the substance by regulation. CERCLA §102(b) (42 U.S.C. §9602(b)).

In setting RQ's, EPA takes into account the potential hazards posed by the chemicals of concern. The methodology for setting RQs is discussed in the May 25, 1983, Federal Register (48 FR 23552). RQs for hazardous substances are found in 40 CFR 302.4.

Similar to the CWA permits, the RQ acts as a protective mechanism discouraging releases of hazardous wastes to the environment by requiring facilities to report chemical releases above a certain threshold. In general, facilities must report releases of hazardous substances immediately to the National Response Center and State or Local Emergency Planning Center, depending on the type of release. While this reporting does not prevent releases, it requires facilities to be accountable for excess releases of hazardous substances when they occur. Because all hazardous wastes also are listed as hazardous substances, discharge of hazardous wastes in a

facility's wastewater treatment system that cause a release to the environment above reporting thresholds must be reported to the appropriate authorities. While excess releases of hazardous wastes, such as in an upset or pass-through situation, do not qualify for the *de minimis* exemption, the RQ program, by its reporting requirements, provides an additional tool for minimizing hazardous waste discharges through a wastewater treatment system.

It is important to note that the Agency is not increasing the amount of waste that can be described as a *de minimis* release in this proposal. Moreover, these proposed expansions to the types of waste and facilities eligible for the *de minimis* exemption should not be construed as reducing the scope or application of any hazardous waste listing under 40 CFR 261.31 and 261.32. For example, the F006 listing covers wastewater treatment sludges from electroplating operations. For facilities that normally generate F006 wastes, a release of electroplating wastewaters to the treatment system would *still* result in the generation of F006 wastes. A facility could not use the *de minimis* exemption to claim that it is not generating F006 listed hazardous wastes. Finally, as stated previously, this revised *de minimis* exemption only applies to those wastes not specifically addressed under some other provision of the headworks rule.

As with any exemption from the definition of solid or hazardous waste under §§261.2 - 261.6 (including this *de minimis* exemption), 40 CFR 268.7(a)(7) requires a facility to place a one-time notice concerning waste generation, subsequent exclusion from the definition of hazardous waste or solid waste or exemption from RCRA Subtitle

C regulation, and the disposition of the waste, in the facility's on-site files. Generally, such notification, as well as certifications, waste analysis data, and other documentation must be kept for a period of three years unless an enforcement action by the Agency extends the record retention period (§268.7(a)(8)).

In light of the limiting conditions and protective regulatory mechanisms we have discussed above, the Agency is proposing to expand the *de minimis* exemption 1) to non-manufacturing facilities, and 2) to wastes listed in 40 CFR 261.31 and 261.32 (F- and K-listed wastes) released in *de minimis* quantities when they meet certain conditions. Specifically, facilities discharging wastewaters (whether manufacturing or non-manufacturing) that are attempting to qualify for this expanded eligibility must have CWA permits under sections 307(b) or 402 that contain limits for the specific chemicals for which each waste was listed (in 40 CFR 261 Appendix VII) as well as hazardous constituents in 40 CFR 268.40 for which each listed waste has a treatment standard under Land Disposal Restrictions. The two proposed expansions will be considered independently; the Agency seeks comment as to the adequacy of the limiting conditions in ensuring protection of human health and the environment, the prevalence of facilities meeting the conditions (e.g., having CWA permits that limit the constituents associated with the listed waste), and on the advisability of expanding each part of the exemption.

IV. Administrative Requirements

A. State Authority

Under section 3006 of RCRA, EPA may authorize a qualified State to administer and enforce a hazardous waste program within the State in lieu of the federal program,

and to issue and enforce permits in the State. Following authorization, the state requirements authorized by EPA apply in lieu of equivalent Federal requirements and become Federally-enforceable as requirements of RCRA. EPA maintains independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. Authorized states also have independent authority to bring enforcement actions under state law.

A state may receive authorization by following the approval process described in 40 CFR part 271. Part 271 of 40 CFR also describes the overall standards and requirements for authorization. After a state receives initial authorization, new Federal regulatory requirements promulgated under the authority in the RCRA statute which existed prior to the 1984 Hazardous and Solid Waste Amendments (HSWA) do not apply in that state until the state adopts and receives authorization for equivalent state requirements. The state must adopt such requirements to maintain authorization. In contrast, under RCRA section 3006(g), (42 U.S.C. 6926(g)), new Federal requirements and prohibitions imposed pursuant to HSWA provisions take effect in authorized states at the same time that they take effect in unauthorized States. Although authorized states still are required to update their hazardous waste programs to remain equivalent to the Federal program, EPA carries out HSWA requirements and prohibitions in authorized states, including the issuance of new permits implementing those requirements, until EPA authorizes the state to do so. Authorized states are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements.

RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program. See also 40 CFR 271.1(i). Therefore, authorized states are not required to adopt Federal regulations, either HSWA or non-HSWA, that are considered less stringent.

Today's rule is proposed pursuant to non-HSWA authority. The proposed changes in the conditional exemptions from the definition of hazardous waste under the headworks rule are less stringent than the current Federal requirements. Therefore, States will not be required to adopt and seek authorization for the proposed changes. EPA will implement the changes to the exemptions only in those States which are not authorized for the RCRA program. Nevertheless, EPA believes that this proposed rulemaking has considerable merit, and we thus strongly encourage States to amend their programs and become Federally-authorized to implement these rules once they become final.

B. Executive Order 12866: Determination of Significance

Under Executive Order 12866 (58 FR 51735), the Agency must determine whether this regulatory action is ”significant'' and therefore subject to formal review by the Office of Management and Budget (OMB) and to the requirements of the Executive Order, which include assessing the costs and benefits anticipated as a result of the proposed regulatory action. The Order defines “significant regulatory action'' as one that is likely to result in a rule that may: (1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or

state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the Agency has determined that today's proposed rule is a significant regulatory action because this proposed rule contains novel policy issues. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the docket to today's proposal. EPA's economic analysis suggests that this rule is not economically significant under Executive Order 12866, because EPA estimates that the overall national economic effect of the rule is ~~$8.4~~11.4 million to ~~$14.9~~48.6 million in average annual potential cost savings for RCRA regulatory compliance. The following table presents an itemization of EPA's estimated count of affected facilities, affected annual RCRA waste quantities, and estimated annual cost savings for each of the ~~four~~ five main features of this proposed rule.

Summary of Estimated Potential National Economic Impact From the Proposed Revisions to the "*Headworks Exemption*" of the RCRA Hazardous Waste Mixture Rule (40 CFR 261.3(a)(2)(iv)(A) to (E))				
Item	Proposed Regulatory Revision to "Headworks Exemption"	Count of Potentially Affected Entities (Eligible Industrial Facilities)	Annual Quantity of Potentially Affected (Eligible) RCRA Hazardous Waste (tons/year)	Estimate of Average Annual Economic Impact* ($/year)

1	Add two F005 spent solvents (benzene & 2-ethoxyethanol) to the "headworks exemption" for the RCRA hazardous waste mixture rule**	~~1,065 to 3,435~~ 115 to 1,800 facilities	~~0.08 to 0.25~~0.036 to 0.594 million tons/year spent solvent wastes (aqueous & non-aqueous forms)	~~$0.69 to $2.23~~ $0.32 to $5.65 million/year in spent solvent waste management cost savings (netting-out implementation paperwork costs).
2	Provide "headworks exemption" for F001 to F005 spent solvent hazardous waste combustion "scrubber waters"	~~8~~3 to 9 facilities	0.20 to 0.61 million tons/year scrubber wastewater	$0.53 to $1.58 million/year in scrubber wastewater management cost savings
3	Allow "direct monitoring" of F001 to F005 spent solvent waste concentrations in headworks influent wastewaters, in lieu of "mass balance" computations	~~1,460~~1,800 to 7,300 facilities	~~0.78~~ 1.13 to 4.58 million tons/year spent solvent wastes (aqueous & non-aqueous forms)	~~$7.11~~10.09 to $40.88 million/year in spent solvent waste management cost savings
4	Revise RCRA hazardous waste "de minimis" exemption to include RCRA F- & K-listed wastes, ~~and to include non-manufacturing facilities~~	~~1,337~~70 facilities	~~600~~30 tons/year spill incidents	~~$0.50~~0.03 million/year in spill response cost savings
5	Revise RCRA hazardous waste "de minimis" exemption to include non-manufacturing facilities	1,270 facilities	570 tons/year spill incidents	0.48 million/year in spill response cost savings
Column totals = ~~(with -15% to +30% estimation uncertainty intervals)~~		3,300 to ~~8,100~~10,400 facilities	~~1.2 to 2.1~~1.37 to 5.78 million tons/year	~~$8.4 to $14.9~~11.4 to 48.6 million/year cost savings

* Economic impact based on year 2000 price levels for waste management systems~~, and on the 2% discount rate for amortizing industrial wastewater management system lump-sum capital costs, into average annualized equivalent costs~~.
** Hypothetical expansion of the RCRA "headworks exemption" to include all four chemical solvents examined in the proposed rule, would only result in addition of one wastestream, at an additional annual cost savings of about $19,000 (consisting of ~~16,8~~17,000 tons/year aqueous spent solvent).

A detailed presentation of EPA's methodology, data sources, and computations applied for estimating the number of affected entities (industrial facilities) and economic impacts attributable to today's proposal is provided in the "Economic Background Document" to this proposal.

C. Paperwork Reduction Act (Information Collection Request)

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request

(ICR) document has been prepared by EPA (ICR No. 1189.XX). A copy of this ICR may be obtained from Sandy Farmer by mail at Collection Strategies Division; U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Avenue, NW., Washington DC 20460, or by calling (202) 566-1676, and by email at farmer.sandy@epamail.epa.gov. A copy also may be downloaded off the internet at http://www.epa.gov/icr.

EPA proposes the following conditions for reporting and recordkeeping by generators: The rule requires generators wanting to demonstrate compliance with the headworks rule through direct monitoring to submit a one-time copy of their sampling plan to the EPA Regional Administrator (or the state Director in an authorized state) and to maintain all records concerning such direct monitoring for a minimum of three years. The sampling plan requirements for the direct monitoring will be site specific. As with all other exemptions and exclusions from the definition of hazardous waste, a facility is required under 40 CFR 268.7(a)(7) to place a one-time notice concerning waste generation, subsequent exclusion from the definition of hazardous waste or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste, in the facility's on-site files. Generally, such notification, as well as certifications, waste analysis data, and other documentation must be kept for a period of three years, unless an enforcement action by the Agency extends the record retention period (§268.7(a)(8)).

EPA estimates that the total annual respondent burden for the new paperwork requirements in the rule is approximately 136 hours per year and the annual

respondent cost for the new paperwork requirements in the rule is approximately $38,000. However, in addition to the new paperwork requirements in the rule, EPA also estimated the burden and cost savings that generators could expect as a result of no longer needing to comply with the existing RCRA hazardous waste information collection requirements for the excluded materials. EPA expects the proposed expansions to the exemption will reduce the annual paperwork burden by 97 hours, but the paperwork burden associated with adding direct monitoring as an option offsets this labor cost reduction, such that there is almost no net change in paperwork burden cost to industry ($36,000 compared to $38,000 with direct monitoring). The net cost to EPA of administering the rule was estimated at approximately $225 per year. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

D. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 USC 601 et. seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business that has fewer than 1000 or 100 employees per firm depending upon the SIC code the firm primarily is classified; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I hereby certify that this proposal will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary

purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities" (5 U.S.C. Sections 603 and 604). Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on small entities subject to the rule. For more information regarding the economic impact of this proposed rule, please refer to the economic background document to this proposal.

We have therefore concluded that today's proposal rule will relieve regulatory burden for small entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

E. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal Agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA must prepare a written analysis, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the

least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of § 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under § 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials to have meaningful and timely input in the development of regulatory proposals, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this rule does not include a Federal mandate that may result in expenditures of $100 million or more for State, local, or tribal governments, in the aggregate, or the private sector in any one year. This is because this proposed rule imposes no enforceable duty on any State, local, or tribal governments. EPA also has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. In addition, as discussed above, the private sector is not expected to incur costs exceeding $100 million. Therefore, today's proposed rule is not subject to the requirements of Sections 202 and 205 of UMRA.

F. Executive Order 13132: Federalism

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

This proposal does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule directly affects primarily generators of hazardous wastewaters containing spent solvents, generators of scrubber waters derived from the incineration of spent solvents, and generators releasing *de minimis* amounts of listed wastes under certain conditions. There are no State and local government bodies that incur direct compliance costs by this rulemaking. State and local government implementation expenditures are expected to be less than $500,000 in any one year. Thus, the requirements of section 6 of the Executive Order do not apply to this proposal.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This proposed rule does not have tribal implications, as specified in Executive Order 13175. Today's rule does not significantly or uniquely affect the communities of Indian tribal governments, nor would it impose substantial direct compliance costs on them. Thus, Executive Order 13175 does not apply to this rule.

H. Executive Order 13045: Protection of Children from Environmental Risks and Safety Risks

The Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997) applies to any rule that EPA determines (1) is "economically significant" as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children; and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposal is not subject to the Executive Order because it is not economically significant as defined in E.O. 12866, and because the Agency does not

have reason to believe the environmental health or safety risks addressed by this proposed rule present a disproportionate risk to children.

I. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution or Use

This proposed rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 Fed. Reg. 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This proposed rule reduces regulatory burden. It thus should not adversely affect energy supply, distribution or use.

J. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law No. 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities, unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This proposed rule would allow facilities to demonstrate compliance using available and applicable sampling methods sufficient to establish compliance with the appropriate weekly standard.

List of Subjects

40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Waste treatment and disposal.

_____ _____

Christine Todd Whitman, Date

Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as follows:

PART 261--IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for part 261 continues to read as follows: Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

2. Section 261.3 is amended by revising paragraph (a)(2)(iv) to read as follows:

Sec. 261.3 Definition of hazardous waste.

(a) * * *

(2) * * *

(iv) * * *

(A) One or more of the following spent solvents listed in §261.31 – benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene – *Provided*, That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, OR the total measured concentration of these solvents entering the wastewater treatment system (at facilities subject to regulation under the Clean Air Act at 40 CFR 60, 61, or 63 as amended), does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels

must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that (1) the sampling and analysis plan fails to include the above information, or (2) the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the sampling and analysis plan is rejected or if the Director finds that the facility is not following the sampling and analysis plan, the facility must no longer use the direct monitoring option until such time as the bases for rejection are corrected; or

(B) One or more of the following spent solvents listed in §261.31 – methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, and 2-ethoxyethanol – *Provided* That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, OR the total measured concentration of these solvents entering the wastewater treatment system (at facilities subject to regulation under the

Clean Air Act at 40 CFR 60, 61, or 63 as amended), does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that (1) the sampling and analysis plan fails to include the above information, or (2) the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the sampling and analysis plan is rejected or if the Director finds that the facility is not following the sampling and analysis plan, the facility must no longer use the direct monitoring option until such time as the bases for rejection are corrected; or

(C) * * *

(D) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in Sections 261.31 - 261.33, arising from *de minimis* losses of these materials. For purposes of this paragraph (a)(2)(iv)(D), *"de minimis*" losses are unscheduled, uncontrollable, insignificant, and inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from

pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for *de minimis* quantities of wastes listed in Sections 261.31 - 261.32, or any non-manufacturing facility that claims an exemption for *de minimis* quantities of wastes listed in Section 261 subpart D must either have eliminated the discharge of wastewaters or have a permit subject to the Clean Water Act that contains limits for 1) the constituents for which each waste was listed (in 40 CFR 261 Appendix VII) and 2) the constituents in the table "Treatment Standards for Hazardous Wastes" in 40 CFR 268.40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents); or

(E) * * *

(F) One or more of the following wastes listed in Sec. 261.32 – wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157) – Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that can not be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight OR the total measured

concentration of these chemicals entering the wastewater treatment system (at facilities subject to regulation under the Clean Air Act at 40 CFR 60, 61, or 63 as amended), does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that (1) the sampling and analysis plan fails to include the above information, or (2) the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the sampling and analysis plan is rejected or if the Director finds that the facility is not following the sampling and analysis plan, the facility must no longer use the direct monitoring option until such time as the bases for rejection are corrected; or

(G) Wastewaters derived from the treatment of one or more of the following wastes listed in Sec. 261.32--organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156).--Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system

does not exceed a total of 5 milligrams per liter OR the total measured concentration of these chemicals entering the wastewater treatment system (at facilities subject to regulation under the Clean Air Act at 40 CFR 60, 61, or 63 as amended), does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that (1) the sampling and analysis plan fails to include the above information, or (2) the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the sampling and analysis plan is rejected or if the Director finds that the facility is not following the sampling and analysis plan, the facility must no longer use the direct monitoring option until such time as the bases for rejection are corrected.